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09/591,584	06/09/2000	Peter T Dietz	55434USA1A.002	2946

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EXAMINER
VO, HAI

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/591,584	Applicant(s) DIETZ, PETER T	
	Examiner Hai Vo	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☒ Claim(s) *30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 7, 8, 13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hutchison (US 5,118,540). Hutchison discloses a reflective film mounted on a glass substrate having a layer construction as follows, a protective fluorocarbon film, a first layer of pressure sensitive adhesive, a silver layer, a biaxially oriented polyethylene terephthalate (PET), a second layer of pressure sensitive adhesive, a biaxially oriented PET, a third layer of pressure sensitive adhesive and a glass substrate (example 5 and figures 3 and 6). The biaxially oriented PET is about 38 microns thick (column 10, line 18). The protective fluorocarbon film disclosed by Hutchison is analogous to the scratch resistant

hard coating of the claimed invention. The examiner interprets the term "hard" of the claim does not necessarily mean stiffness but refers to a surface that is not easily marred. Since Hutchison discloses the fluorocarbon film serves to protect the laminate from damage through wear and tear (column 6, 45-48), the protective film meets the claim limitation. With regard to claim 5, Hutchison shows that the film having three PET layers (example 6). Hutchison is silent as to one of the tests the laminate must pass, percent haze of the laminate and the modulus strength of the adhesive. However, since the laminate of Hutchison is structurally the same, and made of the same materials as the presently claimed composite. It is the examiner's position that passing a test and percent haze would be inherently present. Further, Hutchison is using the same acrylic pressure sensitive adhesive as Applicant, the modulus strength of the adhesive would be inherently present.

3. Claims 1, 2, 4, 7, 8, 13, 15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kubler et al (US 6,143,387). Kubler discloses a laminate having a layer construction as follows, a layer of glass, a first pressure sensitive adhesive layer, a first PET layer containing UV absorber, a second pressure sensitive adhesive layer, a second PET layer and a scratch resistant hard coating layer (figure 1, column 6, lines 60-67). The PET is about 12 microns thick (example 1). Kubler is silent as to one of the tests the laminate must pass, percent haze of the laminate and the modulus strength of the adhesive. However, since the laminate of Kubler is structurally the same, and made of the same materials as the

presently claimed composite. It is the examiner's position that passing a test and the haze percent would be inherently present. Further, Kubler is using the same acrylic adhesive as Applicant, the modulus strength of the adhesive would be inherently present.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) as applied to claim 1 above, in view of Bilkadi et al (US 5,677,050). Hutchison discloses a laminate 100 comprising a scratch-resistant fluorocarbon film 160 bonded to an acrylic pressure sensitive adhesive 150 (figure1). Hutchison is silent as to a scratch-resistant ceramer coating. Bilkadi supplies the missing feature. Bilkadi teaches the ceramer coating works well on polyacrylics (column 4, lines 12-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the scratch-resistant fluorocarbon film by a ceramer coating as taught in Bilkadi motivated by the desire to obtain a coating that is excellent in abrasion resistance and outdoor durability.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubler et al (US 6,143,387) as applied to claim 1 above, in view of Bilkadi et al (US

5,677,050). Kubler is silent as to a scratch-resistant ceramer coating. Bilkadi supplies the missing feature. Bilkadi teaches the ceramer coating works well on polyacrylics (column 4, lines 12-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the scratch-resistant layer by a ceramer coating as taught in Bilkadi motivated by the desire to obtain a coating that is excellent in abrasion resistance and outdoor durability.

7. Claims 9-11, 14, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Yang et al (US 6,013,722). The primary reference does not teach the presence of a crosslinker in the attachable pressure sensitive adhesive. Yang teaches a low haze acrylic emulsion pressure sensitive adhesive for use in optical articles comprising a cross-linking agent (column 4, lines 1-5). Yang teaches an adhesive coated film having a percent haze less than 2 % and light transmission 98.1% (table 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a cross-linking agent into the attachable pressure sensitive adhesive of the window film motivated by the desire to obtain a laminate that exhibits low haze when adhered to glass surface. With regard to claim 10, the primary reference is silent as to the tempered glass. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount a reflective film on a tempered window glass because a tempered glass glazing unit is conventional to glass window art.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubler et al (US 6,143,387). Kubler is silent as to the biaxial orientation of the PET film. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the biaxially oriented PET film in the formation of the glazing element because it is a commercially available polyester material of this type.

9. Claims 9-11, 14, 16 and 18-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubler et al (US 6,143,387) in view of Yang et al (US 6,013,722). Kubler teaches the optically clear laminate transmitting at least 73% of visible light (column 7, line 25). Kubler does not teach the laminate having at least 75% of light transmission. Yang teaches a low haze acrylic emulsion pressure sensitive adhesive for use in optical articles comprising a cross-linking agent (column 4, lines 1-5). Yang teaches an adhesive coated film having a percent haze less than 2 % and light transmission 98.1% (table 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a cross-linking agent into the attachable pressure sensitive adhesive of the window film motivated by the desire to obtain a laminate that exhibits low haze and high light transmission when adhered to glass surface.

Allowable Subject Matter

10. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations

of the base claim and any intervening claims. None of the prior art discloses or suggests an optically clear laminate comprising in order:

(a) a scratch-resistant hard coat comprised of cured creamer;

(b) a first biaxially oriented polyester film having a thickness of not more than 5mils (0.13 mm);

(c) a first pressure sensitive adhesive layer;

(d) a second biaxially oriented polyester film having a thickness of not more than 5mils (0.13 mm);

(e) a second pressure sensitive adhesive layer;

(f) a third biaxially oriented polyester film having a thickness of not more than 5mils (0.13 mm); and

(g) a third ambient-temperature-attachable pressure sensitive adhesive layer;

wherein said pressure sensitive adhesive layers are comprised of pressure sensitive adhesive having a shear storage modulus measured at 22°C in the range of about 0.2 MPa to 0.5 Mpa.

Response to Arguments

11. The art rejections over Teddington, Jr. have been overcome by the present arguments.

12. The art rejections over Hutchison are maintained because of the following reasons. The argument that the protective fluorocarbon film is not a hard coating is not found persuasive. The examiner interprets the term "hard" of the claim does not necessarily mean stiffness but refers to a surface that is not easily

marred. Since Hutchison discloses the fluorocarbon film serves to protect the laminate from damage through wear and tear (column 6, 45-48), the protective film meets the claim limitation. Further, Applicant argues that the combination of Hutchison and Bilkadi does not teach or suggest the cured creamer coating set out in claim 6. This is not found persuasive. Hutchison discloses a laminate 100 comprising a scratch-resistant fluorocarbon film 160 bonded to an acrylic pressure sensitive adhesive 150 (figure1). Hutchison is silent as to a scratch-resistant ceramer coating. Bilkadi teaches the ceramer composition coating works well on polyacrylics and effectively used in glazing elements (column 4, lines 12-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the scratch-resistant fluorocarbon film by a ceramer coating as taught in Bilkadi motivated by the desire to obtain a glazing element that is excellent in abrasion resistance and outdoor durability. Since the motivation to combine is sufficient and proper, the art rejections are maintained.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone

numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
January 3, 2003

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
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